

ABSTRACT OF THE DISCLOSURE

A video endoscope in which the imaging chip at the distal tip is connected to the proximal connector and operator console by an optical fiber. Video data (preferably digital) is impressed on the optical fiber by a pulse-code modulator (PCM) circuit and light emitter with lensing. A small, inexpensive, flexible optical fiber in the endoscope body conveys the PCM optical data to the receiving circuit, preferably via an optical connector at the proximal end of the endoscope, and to decoding and display circuits in the operator console. The fiber optic transmission overcomes the difficulty of electrical transmission of wide band (digital video) signals via miniature cables, which can be expensive, bulky, inflexible, susceptible to noise and interference, and constitute a potential electrical safety risk by leakage currents. The PCM circuits may be integrated into the camera chip.